

Appl. No 10/822,447  
Filed: April 8, 2004  
Response filed October 29, 2007  
Reply to Office action mailed July 25, 2007

## **REMARKS**

Claims 1-42 are pending in the Application and all were rejected in the Office action mailed July 25, 2007. No claims are amended by this response. Claim 1, 7, 15, 22, 28, and 36 are independent claims. Claims 2-6, 8-14, 16-21, 23-27, 29-35, and 37-42 depend, respectively, from independent claims 1, 7, 15, 22, 28, and 36.

### **Rejection of Claims**

#### **Rejections Under 35 U.S.C. §102**

Claims 1-3, 5-7, 9-16, 18-24, 26-28, 30-37, 39-42 were rejected under 35 U.S.C. §102(e) as being anticipated by Huang (U.S. Patent 5,434,856). Applicants respectfully traverse the rejection.

With regard to the anticipation rejections, MPEP 2131 states, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP 2131 also states, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

With regard to the rejection of claim 1, Applicants respectfully submit that Huang fails to teach, suggest, or disclose, at least, “...a plurality of mobile network devices comprising a buffer that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information...”, as recited in Applicants’ claim 1. The Office action asserts that Huang discloses “...a communication network...comprising a plurality of mobile network devices (**items 102, 114 of Fig 1**) comprising a buffer (**item 200 of Fig 2**) that stores incoming digital voice information for a predetermined queuing period before beginning voice reproduction from the stored digital voice information (**col. 1, lines 58-67**)....”

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(emphasis in original)(Office action at page 2) Applicants respectfully disagree. According to Huang, FIG. 2 "...illustrates a console capable of monitoring multiple, digitally-compressed voice communications in accordance with the present invention." (col. 1, lines 50-52) Applicants respectfully submit that item 200 of FIG. 2 of Huang is a buffer in the console 122 of Huang, and is not a buffer in a mobile network device, in accordance with Applicants' claim 1. Applicants respectfully submit that the console 122 of Huang is different from and does not anticipate the "mobile network devices" recited in Applicants' claim 1. Therefore, Applicants respectfully submit that Huang fails to teach or suggest at least this aspect of Applicants' claim 1.

In addition, Applicants respectfully submit that Huang fails to teach, suggest, or disclose "...a telephone, connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form...", as recited in Applicants' claim 1. The Office action asserts that Huang discloses "...a telephone (**consoles, item 122 of Fig 1**), connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form (**col. 2, lines 41-52**)..." (emphasis in original)(Office action at page 3) Applicants respectfully disagree. Applicants respectfully submit that the "console 122" of Huang is different from and does not anticipate the "telephone" element of Applicants' claim 1. According to Huang, at column 2, line 41 to column 3, line 11:

FIG. 2 illustrates a more detailed depiction of the consoles (122-124) comprising buffers (200-202), decoders (203-205), a data de-multiplexer (206), data routers (207-208), a summer (209), a digital-to-analog converter (D/A) (210), and a speaker (211). Received voice packets are stored in their respective buffers (200-202) by the data de-multiplexer (206) based on their talkgroup ID. Specifically, each of the buffers (200-202) is uniquely reserved for the storage of voice packets received from each of the communication talkgroups. Storage of the voice packets will be discussed later in further detail.

The data routers (207-208) operate to assign a buffer (200-202) to a decoder (203-205) as each decoder becomes available i.e., not in use. In a preferred embodiment, there are K buffers (200-202) and M decoders (203-205) such that  $M \text{apprxeq} K/3$ , implemented using memory and a single digital signal processing device (DSP), such as a Motorola DSP56000. Each decoder (203-205) comprises only those state variables, stored in memory (not shown), required to operate independently of the other decoders. In this manner, each decoder (203-205) does not require a unique DSP, thus reducing the complexity and cost of the console (122-124). Through analysis of expected voice packet traffic in heavily loaded communication systems, it has been shown that 30 talkgroups can be supported using 8 decoders, assuming a tolerant delay time of 100 ms or less. The tolerant delay time is that amount of time deemed acceptable in delaying the decoding of voice packets.

In a preferred embodiment, each decoder (203-205) produces decoded voice information in PCM format. Each stream of decoded voice information is digitally summed with the other decoded voice information by the summer (209). The resulting summed PCM data is converted to analog form by the D/A (210) and rendered audible through the speaker (211). Further understanding of the operation of the consoles (122-124) may be gained from FIG. 3.

Applicants respectfully submit that nothing in the above portion of Huang, which was specifically cited in the Office action, teaches or suggests that the "console 122" of Huang captures voice in an analog voice stream form. Instead, Huang teaches that "console 122" converts buffers of voice packets received from each talkgroup to PCM format, sums the PCM data for all of the talkgroups, and renders the sum audible through a speaker. Nothing in Huang teaches or suggests, however, "...a telephone, connected to said stationary network device, that captures, delivers, receives and reproduces voice in an analog voice stream form...", as recited in Applicants' claim 1. The "console 122" of Huang simply converts and renders as audible, voice packets from

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a number of talkgroups. Therefore, Applicants respectfully submit that Huang also fails to teach or suggest at least this aspect of Applicants' claim 1.

Furthermore, Applicants respectfully submit that Huang fails to teach, suggest, or disclose, at least, "...said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream and delivering the analog voice stream to said telephone...", as recited in Applicants' claim 1. The Office action asserts that Huang discloses "...said stationary network device comprising a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream (**D/A**) and delivering the analog voice stream to said telephone (**col. 2, lines 53-67**)...." (emphasis in original)(Office action at page 3) The Applicants respectfully disagree. Applicants respectfully submit that the Office action identifies the "stationary network device" of Applicants' claim 1 as corresponding to the "packet gateways and routers, item 121 of Fig 1" of Huang. Applicants respectfully submit that Huang states, at column 2, line 53 to column 3, line 2:

The data routers (207-208) operate to assign a buffer (200-202) to a decoder (203-205) as each decoder becomes available i.e., not in use. In a preferred embodiment, there are K buffers (200-202) and M decoders (203-205) such that  $M \geq \text{apprxeq.} K/3$ , implemented using memory and a single digital signal processing device (DSP), such as a Motorola DSP56000. Each decoder (203-205) comprises only those state variables, stored in memory (not shown), required to operate independently of the other decoders. In this manner, each decoder (203-205) does not require a unique DSP, thus reducing the complexity and cost of the console (122-124). Through analysis of expected voice packet traffic in heavily loaded communication systems, it has been shown that 30 talkgroups can be supported using 8 decoders, assuming a tolerant delay time of 100 ms or less. The

tolerant delay time is that amount of time deemed acceptable in delaying the decoding of voice packets.

Applicants respectfully submit that the above portion of Huang, which includes the text specifically cited in the Office action, does not describe the “packet gateways and routers, item 121 of Fig 1” of Huang, that were alleged to teach Applicants’ “stationary network device”. Applicants respectfully submit that instead, the above-portion of Huang describes the elements of FIG. 2 of Huang, which “...illustrates a more detailed depiction of the consoles (122-124)....” which the Office action has alleged teaches the “telephone” element of Applicants’ claim 1. Applicants respectfully submit that nothing in any portion or figure of Huang teaches or suggests that the “packet gateways and routers, item 121 of Fig 1” comprise “...a buffer that stores digital voice information received from said wireless network for a predetermined queuing period before converting the stored digital voice information into an analog voice stream and delivering the analog voice stream to said telephone...”, in accordance with Applicants’ claim 1. Therefore, Applicants respectfully submit that Huang also fails to teach or suggest at least this aspect of Applicants’ claim 1.

Applicants respectfully submit that Huang also fails to teach, suggest, or disclose, at least, “...said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices...”, as recited in Applicants’ claim 1. The Office action states that Huang discloses “...said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices (**col. 3, lines 1-11**)....” (emphasis in original)(Office action at page 3) Applicants respectfully disagree. The Office action previously suggested that the “packet gateways and routers, item 121 of Fig 1” of Huang disclose Applicants’ “stationary network device”. (Office action at page 2)

Applicants respectfully submit that Huang states, at column 2, line 41 to column 3, line 11:

FIG. 2 illustrates a more detailed depiction of the consoles (122-124) comprising buffers (200-202), decoders (203-205), a data de-multiplexer (206), data routers (207-208), a summer (209), a digital-to-analog converter (D/A) (210), and a speaker (211). Received voice packets are stored in their respective buffers (200-202) by the data de-multiplexer (206) based on their talkgroup ID. Specifically, each of the buffers (200-202) is uniquely reserved for the storage of voice packets received from each of the communication talkgroups. Storage of the voice packets will be discussed later in further detail.

The data routers (207-208) operate to assign a buffer (200-202) to a decoder (203-205) as each decoder becomes available i.e., not in use. In a preferred embodiment, there are K buffers (200-202) and M decoders (203-205) such that  $M \geq K/3$ , implemented using memory and a single digital signal processing device (DSP), such as a Motorola DSP56000. Each decoder (203-205) comprises only those state variables, stored in memory (not shown), required to operate independently of the other decoders. In this manner, each decoder (203-205) does not require a unique DSP, thus reducing the complexity and cost of the console (122-124). Through analysis of expected voice packet traffic in heavily loaded communication systems, it has been shown that 30 talkgroups can be supported using 8 decoders, assuming a tolerant delay time of 100 ms or less. The tolerant delay time is that amount of time deemed acceptable in delaying the decoding of voice packets.

In a preferred embodiment, each decoder (203-205) produces decoded voice information in PCM format. Each stream of decoded voice information is digitally summed with the other decoded voice information by the summer (209). The resulting summed PCM data is converted to analog form by the D/A (210) and rendered audible through the speaker (211). Further understanding of the operation of the consoles (122-124) may be gained from FIG. 3.

(underline added)

Applicants respectfully submit that the portion of Huang shown above, which includes the text cited in the Office action as teaching Applicants' limitation "...said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices..." (underlined) does not, in fact, teach anything about the "packet gateways and routers, item 121 of Fig 1" that allegedly disclose Applicants' "stationary network device". Instead, this portion of Huang describes the "consoles (122-124)" of Huang. Applicants respectfully submit that no portion or figure of Huang teaches or suggests that the "packet gateways and routers, item 121 of Fig 1" of Huang "...converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices...", in accordance with Applicants' claim 1. The Office action has, therefore, failed to show where Huang teaches "...said stationary network device converts analog voice streams received from said telephone into voice packets for delivery via said hardwired and wireless networks to a selected one of said plurality of mobile network devices...", as recited in Applicants' claim 1. Therefore, Applicants respectfully submit that Huang also fails to teach or suggest at least this aspect of Applicants' claim 1.

Based at least upon the above, Applicants respectfully submit that Huang fails to teach or suggest each and every element of Applicants' claim 1, as required by M.P.E.P. §2131, that the Office action has failed to establish a *prima facie* case of anticipation, and that the rejection of claim 1 under 35 U.S.C. §102(e) cannot be maintained.

With regard to claims 15, 22, and 36, Applicants respectfully submit that the Office rejected claims 15, 22, and 36 for the same reasons set forth in the rejection of claim 1, addressed above. Applicants have addresses the alleged teachings of Huang and believe that claim 1 is allowable, for at least the reasons set forth above.

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Applicants respectfully submit that the Office action has failed to identify any teachings in Huang that specifically address features of Applicants' claims 15, 22, and 36 other than those set forth in the rejection of claim 1. Based at least upon the above, Applicants respectfully submit that the Office has failed to show where Huang teaches or suggests each and every limitation of Applicants' claims 15, 22, and 36, as required by M.P.E.P. §2131.

Therefore, Applicants believe that claims 1, 15, 22, and 36 are allowable over Huang, for at least the reasons set forth above. Applicants respectfully submit that claims 2-6, 16-21, 23-27, and 37-42 depend either directly or indirectly from allowable claims 1, 15, 22, and 36, respectively, and are also allowable, for at least the same reasons. Applicants respectfully request, therefore, that the rejection of claims 1-3, 5, 6, 15, 16, 18-21, 22-24, 26, 27, and 36, 37, and 39-42 under 35 U.S.C. §102(e) be reconsidered and withdrawn.

With regard to claims 7 and 28, Applicants respectfully submit that Huang fails to teach, suggest, or disclose, at least, "...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received...", as recited in Applicants' claim 7; and "...capture data and generate data packets from the captured data; and receive data packets and reproduce data from the received data packets...", as recited in Applicants' claim 28. The Office action alleges that Huang discloses "...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received...**(col. 3, lines 3-10)**...." (emphasis in original)(Office action at page 4) Applicants respectfully disagree.

Applicants respectfully submit that the Office action suggests that "...items 101-103 of Fig 1..." of Huang disclose Applicants' "plurality of portable terminals". (Office action at page 4) According to Huang at column 3, lines 3-10:

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In a preferred embodiment, each decoder (203-205) produces decoded voice information in PCM format. Each stream of decoded voice information is digitally summed with the other decoded voice information by the summer (209). The resulting summed PCM data is converted to analog form by the D/A (210) and rendered audible through the speaker (211). Further understanding of the operation of the consoles (122-124) may be gained from FIG. 3.

Applicants respectfully submit that the above portion of Huang, which was specifically cited by the Office action as teaching "...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received...", fails to teach anything with respect to portable terminals. Instead, the cited portion of text is taken from Huang's description of the conversion of voice packets to PCM in the "consoles 122-124" of FIG. 1, which fail to teach or suggest the "portable terminals" recited in Applicants' claims 7 and 28. In addition, while Huang describes exchanging voice packets, no portion or figure of Huang offers any teaching of packets of data other than voice. Applicants respectfully submit that Applicants' claims 7 and 28 clearly differentiate data packets from voice packets. Applicants also respectfully submit that neither the cited portion of Huang, nor any other portion or figure of Huang teaches or suggests "...each of said plurality of portable terminals capture data and generate therefrom data packets, and each of said plurality of portable terminals receive data packets and reproduce data from the data packets received...", as recited in Applicants' claim 7; and "...capture data and generate data packets from the captured data; and receive data packets and reproduce data from the received data packets...", as recited in Applicants' claim 28. Huang says nothing with respect to the capture of data and generation of data packets, nor does Huang teach anything with respect to the reproduction of data from received data packets. Huang speaks only of voice packets. Therefore, Applicants respectfully submit that Huang fails to teach or suggest at least this aspect of Applicants' claims 7 and 28.

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In addition, Applicants respectfully submit that Huang fails to teach, suggest, or disclose, at least, "...using a polling protocol to manage wireless routing of data and voice packets...", as recited in Applicants' claims 7 and 28. The Office action asserts that Huang discloses "...said plurality of access devices using a polling protocol to manage wireless routing of data and voice packets within the premises among said plurality of portable terminals (**col. 2, lines 23-40**)...." (emphasis in original)(Office action at page 5) Applicants respectfully disagree. According to Huang, at column 2, lines 23-40:

The base stations (114-116), which may be Motorola Smartrepeaters operating in conjunction with a site controller, are connected with the frame relay switch (120) via telecommunication links (126-128) such as private telephone lines utilizing T1 or "fractional T1" protocols. The frame relay switch (120), which may be a Motorola Smartzone® controller, provides relay capability of voice packets between the base stations (114-116) as well as the packet gateway (121). The voice packets are blocks of digitally-compressed voice (coded voice information) logically arranged into groups, identified by at least a talkgroup identification (ID). The packet gateway (121) converts voice packets from the format used by the frame relay switch (120) to that used by the LAN (125). The protocol used by the LAN (125) can be any protocol able to accomodate packetized voice.

Applicants respectfully submit that neither the above portion of Huang, nor any other portion or figure of Huang teach or suggests anything with respect to a "polling protocol". Instead, the portion of text shown above simply mentions "T1" or "fractional T1" protocols. The Office action fails to provide any showing that either the "T1" or the "fractional T1" protocols is a "polling protocol". The above portion of Huang also states that "...[t]he protocol used by the LAN (125) can be any protocol able to accomodate packetized voice...." However, Huang fails to teach or suggest that LAN(125) performs

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"...manage wireless routing of data and voice packets...", in accordance with Applicants' claims 7 and 28. Therefore, Applicants respectfully submit that Huang fails to teach or suggest at least this aspect of Applicants' claims 7 and 28.

Based at least upon the above, Applicants respectfully submit that Huang fails to teach or suggest each and every element of Applicants' claims 7 and 28, as required by M.P.E.P. §2131, that the Office action has failed to establish a *prima facie* case of anticipation, and that the rejection of claims 7 and 28 under 35 U.S.C. §102(e) cannot be maintained.

Therefore, Applicants believe that claims 7 and 28 are allowable over Huang, for at least the reasons set forth above. Applicants respectfully submit that claims 7-14 and 29-35 depend either directly or indirectly from allowable claims 7 and 28, respectively, and are also allowable for at least the same reasons. Applicants respectfully request, therefore, that the rejection of claims 7, 9-14, 28, and 30-35 under 35 U.S.C. §102(e) be reconsidered and withdrawn.

### **Rejections Under 35 U.S.C. §103**

Claims 4, 8, 17, 25, 29, and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Meier et al. (U.S. Patent 5,394,436, hereinafter "Meier"). Applicants respectfully traverse the rejection.

The Applicant respectfully submits that the Examiner has failed to establish a case of *prima facie* obviousness for at least the reasons provided below. M.P.E.P. §2142 clearly states that "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." The M.P.E.P. §2142 goes on to state that "[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined)

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must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure."

Applicants respectfully submit that claims 4, 8, 17, 25, 29, and 38 depend, respectively, from independent claims 1, 7, 15, 22, 28, and 36. Applicants believe that claims 1, 7, 15, 22, 28, and 36 are allowable over the proposed combination of references, in that Meier fails to overcome the shortcomings of Huang, as set forth above. Because claims 1, 7, 15, 22, 28, and 36 are allowable over Huang and Meier, Applicants respectfully submit that dependent claims 4, 8, 17, 25, 29, and 38 are also allowable, for at least the same reasons. Applicants respectfully request, therefore, that the rejection of claims 4, 8, 17, 25, 29, and 38 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

### **Conclusion**

In general, the Office action makes various statements regarding claims 1-42 and the cited reference that are now moot in light of the above. Thus, Applicants will not address such statements at the present time. However, Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

The Applicants believe that all of pending claims 1-42 are in condition for allowance. Should the Examiner disagree or have any questions regarding this submission, the Applicants invite the Examiner to telephone the undersigned at (312) 775-8000.

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The Commissioner is hereby authorized to charge additional fee(s) or credit overpayment(s) to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

Dated: October 29, 2007

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